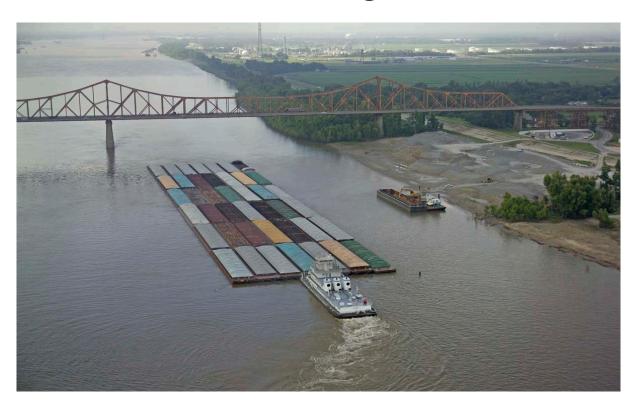
MISSISSIPPI RIVER AND TRIBUTARIES WATERWAYS ACTION PLAN

MSU Baton Rouge Annex



1. Geographic Description

USCG Marine Safety Unit Baton Rouge - Lower Mississippi River (MM 167-303)

- (a) Marine Safety Unit (MSU) Baton Rouge's Area Of Responsibility (AOR) is comprised of the following Parishes: Avoyelles, Evangeline, St Landry, Pointe Coupee, West Feliciana, East Feliciana, St Helena, West Baton Rouge, East Baton Rouge, Livingston, Iberville and Ascension and includes the Lower Mississippi River from MM 167 303. This section of the Waterways Action Plan applies to the Lower Mississippi River beginning in Baton Rouge (MM 167) and ending at the Old River Lock (MM 303).
- (b) The Mississippi River Basin or Watershed drains 41% of continental United States. Thirty-one states and 2 Canadian provinces are included in the watershed. The total area drained by the watershed is between 1.2 and 1.8 million square miles. Historically during the spring months, when the snow and ice melts in the Northern states, the Mississippi River experiences a sharp increase in river levels, flow rates and floating debris, which degrade the navigation channels and increase the potential for river industry related accidents. During low water, restrictions on the navigable widths of the rivers and the maximum safe drafts of barges can impede commerce.
- (c) The Port of Baton Rouge has recently been expanded and upgraded with extensive storage facilities. It ranks ninth in the nation in waterborne commerce and is the farthest inland deep-water port on the Mississippi River. Petroleum products, iron, steel, grain, rubber, paper, wood, coffee, coal, chemicals and edible oils are shipped through the port.
- (d) There are six (6) fleets that have been used "historically" in the past to fleet regulated and unregulated cargo. There are (5) repair facilities (located in Baton Rouge) that have floating dry docks. There are eighteen (18) towing companies with towing and fleeting capabilities.

CG Marine Safety Unit Baton	Rouge – Area of Responsibility
Lower Mississippi River	MM 167 – MM 303

2. Parties and Roles

2. A. General

The successful management of any river crisis is dependent on the cooperation of the waterway system participants. This includes agencies of the federal, state, and local governments, industry groups, and the general public. This chapter identifies the key organizations in these areas, outlines their authority and responsibilities, and explains their roles during a river crisis. Industry groups for the MSU Baton Rouge AOR serve a vital role, serving as a liaison between industry and federal agencies and addressing waterways conditions encompassing the Lower Mississippi River.

This plan shall not replace existing plans. The purpose of this plan is to be used in conjunction with existing plans, incorporating pertinent information to identify critical problem areas based on federal agency and industry experience and through statistical analysis.

2. A.1 Industry Groups & Representatives (LOMRC, GICA, MRMA, GSMA, GNOBFA, LMRWSAC & NOBRA)

<u>Lower Mississippi River Committee (LOMRC)</u> LOMRC is a committee of the Lower Mississippi River towing companies, associated with the River Industry Executive Task Force (RIETF), formed to address navigation problems during significant changes in river conditions such as extreme low water and high water events. The committee has evolved to address all issues concerning the Lower Mississippi River navigation and is the major liaison between the towing industry, the Coast Guard, and the Army Corps of Engineers for river conditions between New Orleans, LA and Memphis, TN. LOMRC is coordinated by a volunteer chairman from industry.

<u>Gulf Intracoastal Canal Association (GICA)</u> The mission of GICA is to ensure the Gulf Intracoastal Waterway is maintained, operated and improved to provide the safest, most efficient, economical and environmentally-sound water transportation route in our nation, serving petrochemical facilities, refineries, farms, mines, ports, commercial fisheries, recreation and more.

Mississippi River Maritime Association (MRMA) MRMA provides state-of-the-art information and management tools to shipping agents and associate members. Now the industry leader, MRMA members represent over 75% of all Ocean Going vessels entering the Lower Mississippi River (per the New Orleans Board of Trade arrival statistics.) MRMA provides liaison/representation with all federal, state, and local regulatory officials and agencies. Additionally, they offer custom productivity tools including Automatic Information System (AIS), Vessel Tracking System (C-View), a pilotage calculator, and a Terminal Database.

<u>Gulf States Maritime Association (GSMA)</u> GSMA provides its member agencies liaison services with Federal agencies such as Customs, U. S. Coast Guard, U.S.D.A, Army Corps of Engineers and Immigration. Also, the Association is concerned with matters at the source of regulation - Congress and the State Legislature. The Association deals with such diverse matters as adequate deep-draft anchorage areas and channels in the Mississippi River, the Mississippi River-Gulf Outlet, and the Calcasieu River.

<u>Greater New Orleans Barge Fleeting Association (GNOBFA)</u> GNOBFA is a non-profit association of companies engaged in the operation of barge fleets and towboats in the New Orleans -- Baton Rouge corridor. The purpose of the Association is to promote a closer professional relationship between members, to disseminate information pertaining to fleeting and the river industry, to support member companies when consistent with the interests of the organization as a whole, and to improve relations with communities, regulating government bodies, and other professional organizations.

<u>Lower Mississippi River Waterway Safety Advisory Committee</u> (LMRWSAC) provides advice and makes recommendations to the Coast Guard on matters relating to the safe navigation of vessels to and from ports on the Lower Mississippi River.

<u>New Orleans and Baton Rouge Steamship Pilots Association (NOBRA)</u> NOBRA works closely with the local Coast Guard MSU (Marine Safety Unit), providing information on casualties and vessel deficiencies.

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AREAS ADDRESSED	COMPANY	MAIN POC	INDUSTRY GROUP
Lower Mississippi River (LMR)	Ingram Barge Co.	LOMRC Chairman Frank Johnson	Lower Mississippi River Committee (LOMRC)
LMR	Kirby	Vice Chairman Jay McDaniel	Lower Mississippi River Committee (LOMRC)
LMR/ Intracoastal	GICA	GICA Executive Director James Stark	Gulf Intracoastal Canal Association (GICA)
LMR/ Intracoastal	Channel Shipyard Companies	LMRWSAC Chairman Cherrie Felder	The Lower Mississippi River. Waterway Safety Advisory Committee. (LMRWSAC)
LMR	MRMA	MRMA Ron Branch	Mississippi River Maritime Association (MRMA)
LMR	GSMA	Sean Duffy, Sr.	Gulf States Maritime Association (GSMA)
LMR	LMR Gulf South Marine		Greater New Orleans Barge Fleeting Association (GNOBFA)
LMR	NOBRA	NOBRA Capt Mike Rooney	New Orleans and Baton Rouge Steamship Pilots Association (NOBRA)

2. B. Federal Agencies

The United States Code (USC) provides regulatory authority for establishing and authorizing work or structures constructed within the navigable waterways and maintaining navigation throughout U.S. territorial waters. Included as part of a national waterway system are numerous rivers, lakes and streams that comprise the inland waterway system. Navigation on these "navigable waters of the United States" is regulated primarily by the United States Coast Guard (USCG). The United States Army Corps of Engineers (USACE) provides technical advice to the USCG to enable them to properly evaluate and make decisions on navigation safety matters. The USACE is also responsible for authorizing waterway projects, evaluating and maintaining navigable channels, and directing emergency flood control operations (such as activation of spillways).

2. B.1 United States Coast Guard (USCG)

Title 14, USC, defines USCG roles and responsibilities in establishing and maintaining the safety of ports and waterways. 33 CFR Part 165.20 gives COTP's and USCG District Commanders the authority to impose safety zones, security zones, and other restrictions to ensure the safe flow of navigation. Activities of the COTP's are overseen by the Commander, Eighth Coast Guard District, in New Orleans, LA. Activities of the Unit Commanding Officers are overseen by the Sector Commander, Sector New Orleans, in New Orleans, LA.

CG Marine Safety Unit Baton Rouge – Area of Responsibility			
Lower Mississippi River	MM 167 – MM 303.0		

2. B.1.a. Safety Advisory

Navigation Safety Advisories are the simplest form of intervention and rely on the voluntary compliance of industry to limit risk and prevent vessel casualties. USCG advisories are usually issued after consultation with the USACE and industry-user groups. They can be originated by the USCG or self imposed by industry, and disseminated as a Broadcast Notice to Mariners (BNM), USACE bulletin board, River Industry Bulletin Board (RIBB), over the industry facsimile, or any combination of these methods. The purpose is to advise the marine industry of hazardous conditions and provide recommendations for safe navigation. Advisories can also be used to notify the marine industry of the Captain of the Port's (COTP) intention to take action with respect to developing hazardous navigation conditions. Advisories are important tools that provide marine interests time to adjust their operations to avoid future problems.

B.1.b. Safety Zone

During extreme high or low water conditions, commercial vessel navigation can become increasingly hazardous. Extreme river conditions may require the establishment of a safety zone by the COTP, imposing vessel-operating restrictions. Consultation and deliberation with the USACE and industry-user groups usually precede implementation of a safety zone by the USCG. A safety zone entails the control of a portion of the waterway, enabling the USCG to control access and/or prescribe operating restrictions on vessels seeking to navigate in the area. Safety zones can be applied to limited or large geographical areas and may involve simple or complex restrictions including, but not limited to:

- Towing vessel horsepower requirements (per barge ratio) & assist towing vessel requirements
- Specific tow configuration, tow size limits, length/breadth limits & draft limits

- Safe speed zones, no-passing zones, no-meeting zones or traffic separation schemes
- Tank barge prohibitions or the exclusion of all vessels from the safety zone
- Reporting requirements

The establishment of a safety zone may include active control of vessel traffic through an area or it may be conducted passively, relying on voluntary compliance to limit risk. Safety zones using passive control have been imposed on other waterways during periods of high or abnormally low water and when local construction or pollution response cleanup operations are impacted by passing traffic.

2. B.1.c. Security Zone

In some cases a security zone may be implemented to protect persons, property and the environment from actual or potential threats related to terrorism or destruction. These extreme cases may require the establishment of a security zone by the COTP to impose restrictions on a vessel or a specific waterway. Consultation and deliberation with the USACE, and industry-user groups usually precede implementation of a security zone by the USCG. A waterborne security zone entails the control of a portion of the waterway, enabling the USCG to control access and/or prescribe restrictions on vessels and/or persons entering through the area. Security zones can be applied to limited or large geographical areas and may involve simple or complex restrictions.

2. B.1.d. Captain of the Port (COTP) Order

Captain of the Port Orders are specific directions provided to an individual, facility or vessel and are detailed and exact in scope. Issued under the authority of the Ports and Waterways Safety Act, compliance with COTP Orders is required, and failure may result in civil or criminal penalty action. In general, COTP Orders will only be used when a terminal or vessel appears to be operating in an unsafe manner or to reduce a potential hazard or mitigate damage to the environment or property.

2. B.2 United States Army Corps of Engineers (USACE)

Title 33 U.S.C., defines the USACE roles and responsibilities regarding development of, or change to, waterfront facilities, weirs, dams or dikes. Specifically, the USACE is authorized to review and approve all changes to hydrodynamic structures for the purposes of maintaining a navigable channel. In addition, the USACE is charged with conducting operations to maintain the physical nature of a navigable channel on particular waterways. Generally, the USACE has the responsibility to maintain a 9 foot congressionally authorized project depth within the navigable channel on the Ohio River System. The USACE is also responsible for directing emergency flood control operations and collecting information on flood stages and damage.

USACE POSITION	DUTIES & RESPONSIBILITIES	EQUALS	USCG POSITION	DUTIES & RESPONSIBILITIES
			Chief, Prevention Department, MSU Baton Rouge	Manages daily waterway management and casualty operations& supervises operational response issues
	REP	ORTS TO:		
Lockmaster for Old River, Port Allen, Bayou Sorrell Lock	Supervise and maintain locks		Commanding Officer MSU Baton Rouge	Senior USCG Officer in Baton Rouge AOR
REPORTS TO:				
District Engineer, New Orleans	Supervise Corps activities in New Orleans District		Sector New Orleans Commander	Senior USCG officer in area

3. Communications

3. B. Mississippi River Communications Plan

3. B.2. Lower Mississippi River

Lower Mississippi River Committee (LOMRC) is a committee of the Lower Mississippi River towing companies, formed to address navigation problems during significant changes in river conditions such as extreme low water and high water events. The committee has evolved to address all issues concerning the Lower Mississippi River navigation and is the major liaison between the towing industry, the Coast Guard, and the Army Corps of Engineers for river conditions between from MM 585 to the mouth. LOMRC is coordinated by a volunteer chairman from industry. LOMRC will provide a member to stand watch on the TAV at Wilkinson Point or Vessel Traffic Service Lower Mississippi River in New Orleans to monitor and advise traffic transiting Wilkinson Point when required due to High Water conditions above 35 feet on the Baton Rouge gauge.

<u>Gulf Intracoastal Canal Association (GICA)</u> is a committee of the Gulf Intracoastal Waterway consortium of companies, formed to address navigation problems during significant changes in waterway conditions such as extreme low water and high water events. The committee has evolved to address all issues concerning the Gulf Intracoastal Waterway navigation and is the major liaison between the marine industry, the Coast Guard, and the Army Corps of Engineers for canal conditions from the Port Allen Lock in Baton Rouge, LA to the mouth in Morgan City, LA. GICA is coordinated by a volunteer chairman from industry. GICA will provide one watch stander to Vessel Traffic Service Lower Mississippi River in New Orleans to monitor and advise traffic transiting the Port Allen Lock when required due to High Water conditions above 35 feet on the Baton Rouge gauge.

3.B.2.a. Lower Mississippi River Towing Industry Communications Plan (LOMRC)

COMPANY / ORGANIZATION	DESIGNATED CONTACT	PHONE NUMBER	E-MAIL ADDRESS	WHEN CONTACTED
AEP MEMCO	Harold Dodd:	800-207-8212 or	haroldd@memcobarge.com	All Situations
	Vice President Boat	314-406-4663		
	Operation			
	Jeff Stover:	270-441-2929 or	jgstover@aepriverops.com	
	Port Captain	314-239-4332	<u>Janover e depriverops.com</u>	
ADM/ARTCO	Bruce Hussell:	314-481-8828		All Situations
	Port Captain	314-803-4643	bruce.hussell@admworld.com	THE STUMETONS
	Ben Ainsworth:			
	Port Captain	314-481-8828	benny.ainsworth@adm.com	
	5	314-724-6083		
	Bernie Heroff:	214 401 0020	1 11 000 1	
	Port Captain	314-481-8828	bernard.heroff@adm.com	
	Amanda MaNanlaru	314-803-4644		
	Amanda McNanley:	314-481-8828	amanda.mcnanley@adm.com	
	Assistant Port Captain	314-409-7103	amanda.mchamey@adm.com	
Ingram Barge Co.	Frank Johnson:	270-441-1649 or		All Situations
ingram barge co.	LOMRC Chairman	270-241-1049 01	frank.johnson@ingrambarge.com	An Situations
	General Manager Vessel	270 210 3712	<u>irank.joimson e ingramourge.com</u>	
	Operations Operations			
	John Operle:	270-441-1606 or	john.operle@ingrambarge.com	
	Vice President Operations	270-210-6183		
	Tom Haley:	270-441-1611 or	tom.haley@ingrambarge.com	
	Manager Vessel	270-217-3319 or		
	Operations	Fax: 615-695-3719		

3. B.2.a. Lower Mississippi River Towing Industry Communications Plan (LOMRC) (Continued)

COMPANY / ORGANIZATION	DESIGNATED CONTACT	PHONE NUMBER	E-MAIL ADDRESS	WHEN CONTACTED
Marquette Transportation	David Goin: Port Captain	270-744-4312 office 314-614-5088 cell	dgoin@marquettetrans.com	All Situations
Kirby Inland Marine	Dave Shaw: VP Vessel Operations	225-405-4545 713-435-1602	dave.shaw@kirbycorp.com	All Situations
	Jay McDaniel: LOMRC Vice Chairman Navigation Port Captain- River Operations	Cell-225-978-2984 Desk-225-201-3006	jay.mcdaniel@kirbycorp.com	

3. B.2.a. Lower Mississippi River Towing Industry Communications Plan (LOMRC) (Continued)

COMPANY / ORGANIZATION	DESIGNATED CONTACT	PHONE NUMBER	E-MAIL ADDRESS	WHEN CONTACTED
Luhr Brothers, Inc.	Steven Glenn: Port Operations	573-335-7033 Cell:573-979-0475 Fax:573-335-7158	sglenn@luhr.com	All Situations
Alter Barge Line	Larry Daily: Vice President Randy Kirschbaum: Marine Manager	563-344-5109 563-529-1646 Office: 563 344 5250 Cell: 563 505 5923 Fax: 563 381 4352	Larryd@alterbarge.com Randyk@alterbarge.com	All Situations
Canal Barge Line	Paul Barnes: Port Captain	Office 504-585-4623 Cell 504-908-0828	pbarnes@canalbarge.co m	All Situations

3. B.2.a. Lower Mississippi River Towing Industry Communications Plan (LOMRC) (Continued)

COMPANY / ORGANIZATION	DESIGNATED CONTACT	PHONE NUMBER	E-MAIL ADDRESS	WHEN CONTACTED
Magnolia Marine Transport Company	Roger Harris: VP of Operations	800-629-5921 or 601-831-2079	Roger.harris@ergon.com	All Situations
	Lester Cruse: Port Captain	(601) 831-1406 (800) 696-5921	lester.cruse@ergon.com	
Ergon Marine	Danny Koestler: VP EMIS	601-636-6552 or 601-831-4711 Fax: 601-636-6173	danny.koestler@ergon.co <u>m</u>	All Situations
	Albert Smith: Fleeting Supervisor	Cell: 601.831.4710 Office: 601.636.6552	albert.smith@ergon.com	
	Johnny Gerache: Marine Operation Manager	601-631-3404 or 601-831-4709 Fax:	johnny.gerache@ergon.co m	
	Butch Cummings: Marine Operation Manager	901-774-7463 or 901-849-5746	butch.cummings@ergon.c om	

3.B.2.a. Lower Mississippi River Towing Industry Communications Plan (LOMRC) (Continued)

COMPANY / ORGANIZATION	DESIGNATED CONTACT	PHONE NUMBER	E-MAIL ADDRESS	WHEN CONTACTED
Florida Marine Transporters	Jerry Wiltz: Senior Port Captain	(985)629-2170 or (985)264-6679	jerryw@flmarine.com	All Situations
	Shelden Detrafford: Port Captain	985-373-6447 or	shelden@flmarine.com	
		985-373-6447 01		
	Dallas Theriot: Port Captain	985-629-2208 or 985-373-2332	dallas@flmarine.com	
	Jeff Soudelier: Port Captain	985-629-2212 or	jeff@flmarine.com	
	•	985-502-6670	towns @flooring one	
	Terry Wiltz: Port Captain	985-502-1641 Fax 985-629-2110	terryw@flmarine.com	
	Troy Hotard	(985)629-2170	thotard@flmarine.com	
	Port Captain	(337)344-2959		
Jantran	John Janoush: Vice President	662-759-6841 or 662 / 846 / 7301	john@jantran.com	All Situations

3.B.2.a. Lower Mississippi River Towing Industry Communications Plan (LOMRC) (Continued)

COMPANY / ORGANIZATION	DESIGNATED CONTACT	PHONE NUMBER	E-MAIL ADDRESS	WHEN CONTACTED
Western KY Navigation, Inc.	Dave Dewey: President	270-832-1866	Dave.D@wkynav.com	All Situations
Martin Marietta Aggregates	Paul Bonner: Operation Manager	(225) 268-9302	Paul.Bonner@martinmarietta.com	All Situations
Lawson & Lawson Towing Co., Inc.	Vance Lawson: President Dale Conner: Engineering	870-238-7219 or 870-208-4166 870-238-7219 or Fax: 870-238-8771	lltc@crosscountybank.com	All Situations
Capital Fleet Acadian Marine	Captain Thomas Grantham	225-343-2226 Fax 225-383-5859	thomas.grantham@ingrambarge.com	All Situations

Additional Industry Contacts

COMPANY / ORGANIZATION	DESIGNATED CONTACT	PHONE NUMBER	E-MAIL ADDRESS	WHEN CONTACTED
McKinney Towing	Aaron McKinney	Office: 225-387-0461 Cell: 225-268-5648	aaron@mckinneyweb.com	All Situations
	Andy McKinney	Office 225-387-0461 Cell 225-445-5230	andy@mckinneyweb.com	
Bear Industries	Darren Moore	Work: 225-383-0843 Cell: 225-405-8142	bear@bear-ind.com	All Situations
Gulf States Maritime Association (GSMA)	Sean Duffy, Sr.	Work (504)833-4190 Cell (504)338-3165	sduffy@gsma.us	All Situations
Western Rivers Boat Management	Andy Wilson	Work: 270-444-4772 Cell: 270-994-0052	awilson@westernriversboat.com	All Situations

3. B.2.b. Lower Mississippi River Government Agency Communications Plan

AGENCY	DESIGNATED CONTACT	PHONE NUMBER	E-MAIL ADDRESS	WHEN CONTACTED
U.S. Coast Guard	CAPT			All Situations
Sector New Orleans				
Sector Command	Captain (Deputy)			
U.S. Coast Guard	Commanding Officer:			All Situations
MSU Baton Rouge	LCDR			in Significant
	Executive Officer:			
	LT			
	Chief, Prevention:			
	LT			
U.S. Army Corps of	Operations Manager			Lower Miss. River
Engineers				Low / High Water

3. B.2.c Lower Mississippi River Miscellaneous Contacts

AGENCY	DESIGNATED CONTACT	PHONE NUMBER	E-MAIL ADDRESS	WHEN CONTACTED
Lower Mississippi River Committee	Frank Johnson	Work: 270-441-1649	Frank.Johnson@ingrambarg e.com	All Situations
(LOMRC) Gulf Intracoastal Canal Association	Tomas Chouly	Cell: 270-210-5912		A 11 Cityatiana
(GICA)	James Stark	Work: 901-490-3312	jstark@gicaonline.com	All Situations
New Orleans Baton Rouge Pilots	Michael Rooney	Work: 504-219-2601	rooneyme@nobrapilots	All Situations
Association		Cell: 504-289-7554	<u>.com</u>	
(NOBRA)		Fax: 504-456-6456		
Greater New Orleans Barge Fleeting	Karl Gonzales	504-737-6993	Karl@gulfsouthmarine.	All Situations
Association (GNOBFA)			com	

3.B.2.d. Lower Mississippi River Internet Information Communications Plan

Internet Site Purpose	Web Address
U.S Coast Guard- MSU Baton Rouge	http://www.uscg.mil/d8/msuBatonRouge/
River Industry Bulletin Board (R.I.B.B.)	http://www.ribb.com/index.php
Greater New Orleans Barge Fleeting Association (GNOBFA)	http://www.gn12141987obfa.com/
National Response Center (NRC) – Report Pollution / Terrorist Activity	http://www.nrc.uscg.mil/nrchp.html
Ohio River Lock & Dam Vessel Queues	http://www.ribb.com/riverstatus/river_locks.php
River Gauges	www.rivergages.com
Lower Mississippi River Forecast Center	http://www.srh.noaa.gov/lmrfc/?n=lmrfc- mississippiandohioriverforecast
U.S. Army Corps of Engineers – River Gauges	http://www.lrd-wc.usace.army.mil/text/navrpti.txt
U.S. Army Corps of Engineers – Real Time River Gauges	http://www.mvn.usace.army.mil/eng/edhd/Wcontrol/miss.htm
U.S. Army Corps of Engineers –Lock information	http://www.mvn.usace.army.mil/od/lockupdates/statusindex.asp
U.S. Army Corps of Engineers – River Navigation Charts	http://www.lrl.usace.army.mil/
The River School – River Training & Orientation	http://www.riverschool.com/
U.S. Coast Guard Sector New Orleans	http://www.uscg.mil/d8/sectNOLA/
U.S. Coast Guard – Sector Lower Mississippi River – Memphis, TN	http://www.uscg.mil/d8/sectlmr/
Gulf States Maritime Association (GSMA)-	http://www.gsma.us/
Ohio River Lock & Dam Vessel Queues	http://www.ribb.com/riverstatus/river_locks.php

4. Action Plan

During a waterways crisis a wide range of controls and actions are initiated from various involved parties including industry and federal government agencies. In general, industry will take action to reduce potential marine casualties during low & high water situations. For example, during low water conditions (10 feet and below on Baton Rouge gauge), industry will reduce loads on vessels and/or barges, which reduces their drafts, enabling them to navigate through trouble areas. During high water conditions (25 feet and above Baton Rouge gauge), industry may reduce tow sizes to allow more control over the tow and to more effectively utilize towboat horsepower. The Coast Guard and Army Corps of Engineers are also required to take specific and timely actions to aid in preventing marine casualties while facilitating commerce. Some of these actions include the USCG's issuance of Broadcast Notice to Mariners (BNM) regarding potential hazardous areas and the establishment of Safety Zones. Dredging operations by the USACE is a typical mission to reduce the risk in hazardous locations on the river.

On the following pages, various safety controls are outlined per specific high and low water trigger points. Some of these controls are industry initiated, while others are initiated at the federal level. The phases were based on the existing River Crisis Action Plan and modification made during the 2005 high water season. As before circumstances will dictate which, if not all, controls are to be employed.

- A. **Watch:** This phase incorporates both the Port Allen Locks and the Lower Mississippi River (LMR) between MM 219 and MM 240. It is initiated for both when the Baton Rouge gage measures 25-feet and rising.
- B. **Action:** This phase is initiated when the Baton Rouge gage measures 30-feet for the Port Allen Lock and when the gage measures 35-Feet for the LMR between MM 219 and MM 240.
- C. **Recovery:** This phase is initiated as soon as the LMR begins to fall and all predictions indicate a steady fall. During this phase the COTP with industry participation will determine when and what restrictions to lift as conditions begin to improve.
- D. <u>Regulated Navigation Area and Limited Access areas (RNA)</u>: is a water area within a defined boundary for which regulations for vessels navigating within the area have been established by the District Commander. The regulation may include:
 - 1. Specifying times of vessel entry, movement, or departure to, from, with-in, or through ports, harbors, or other waters
 - 2. Establishing vessel size, speed, draft limitations, and operating conditions.
 - 3. Restricting vessel operation, in a hazardous area or under hazardous conditions, to vessels which have particular operation characteristics or capabilities which are considered necessary for safe operation under the circumstances.

River and Water Level Gages used and their Locations:

Baton Rouge Gage (Mississippi River at Baton Rouge)

RiverGages.com (U.S. Army Corps of Engineers)

Site:

http://www2.mvr.usace.army.mil/WaterControl/stationinfo2.cfm?sid=01160&fid=BTRL1&dt=S

This gage is located on the forebay wall of Port Allen Lock at river Mile Marker 228.4, LMR

National Weather Service Advanced Hydrologic Prediction Service (NOAA)

(Same Gage, Different Site)

Site: http://water.weather.gov/ahps2/hydrograph.php?wfo=lix&gage=btrl1

Bayou Sorrel Gage is located at the Bayou Sorrel Lock.

Courtesy of the U.S. Army Corps of Engineers

Site:

http://www.mvn.usace.army.mil/od/lockupdates/lockstatus.asp?lockid=2

Carrollton Gage (Mississippi River at New Orleans)

RiverGages.com (U.S. Army Corps of Engineers)

Site:

http://www2.mvr.usace.army.mil/WaterControl/stationinfo2.cfm?sid=01300&fid=NORL1&dt=S

This gage is located at the Corps of Engineer's dock at river Mile Marker 102.8.

National Weather Service Advanced Hydrologic Prediction Service (NOAA)

Barge Fleeting Operations (Baton Rouge Gauge)

33 CFR 165.803 describes barge mooring rules for the Lower Mississippi River between miles 88 and 240 (Above Head of Passes) to minimize fleeting hazards. Subsection (m) has additional rules for High Water periods.

Baton Rouge Gauge	Required Actions
Baton Rouge Gauge 30 feet or more or, 28 feet and rising when designated by the Coast Guard District Commander (Note this RNA is based on Carrollton Gage readings of 12ft or more than 10 ft and rising. For convenience we have listed the equivalent on the Baton Rouge gauge)	Fleet PIC must: 1. Attend fleet with tug(s) 2. Radar surveillance of fleet in low visibility 3. Do not assemble or disassemble tows during low visibility 4. Ensure fleets w/8 or more barges are equipped w/1 radar equipped towboat for each 100 barges or less 5. Ensure 2 or more towboats are in attendance when barges are withdrawn, moved or added & 8 or more barges in fleet

CRITICAL AREA DESCRIPTION	TRIGGER READING	TREND	TRIGGER CURRENT	DESCRIPTION	PHASE	ACTIONS
Canal Tows Port Allen Locks Mile 219 - 229	BR Gauge 25'	Rising		High Water	Watch	 Conference call to discuss current flow rate and prediction of rise/crest. Advisory issued recommending all tows >600' (excluding towboat) employ an assist vessel 1000 hp when entering and exiting locks. Evaluate the need for a COTP Safety Zone. Advisory issued recommending all Northbound tows exiting the lock to head South and top around North at or below MM 226. Owner/Operators will ensure towing vessel inspections are completed before entering the locks or RNA as per 33 CFR 164 and 33 CFR 165.810(f). Advisory issued for tows to use most experienced crews. Advisory for tows to catch a headline when entering the locks. Vessels will be put on queue for lock turn when their tow is built and may remain in the area which their tow was built until it is time for lock turn.

CRITICAL AREA DESCRIPTION	TRIGGER READING	TREND	TRIGGER CURRENT	DESCRIPTION	PHASE	ACTIONS
Canal Tows Port Allen Locks Mile 219 - 229	BR Gauge 30'0"	Rising		High Water	Watch	 Conference call to discuss current flow rate and prediction of rise/crest. Evaluate the need for a Safety Zone.

CRITICAL	TRIGGER	TREND	TRIGGER	DESCRIPTION	PHASE	ACTIONS
AREA	READING	,	CURRENT			
DESCRIPTION						
Canal Tows Port Allen Locks Mile 219 - 229	BR Gauge 33'0"	Rising		High Water	Action	 Conference call to discuss impending attainment of 35°. Implement a safety zone COTP order issued recommending or requiring tows >600° (excluding towboat) to employ an assist vessel (1000 HP min) entering or exiting the locks. All North Bound tows exiting the lock shall head South (down river) and top around at or below MM 226 prior to heading North. Reissue Marine Information Broadcast, as needed and Marine Safety Bulletin. Issue Advisory to Canal Tow operators recommending tonnage restriction of 1 horse power per 5 ton or 280 HP per regulation barge restriction. Empty barges may be calculated at ½ the horsepower requirements to that of a loaded barge when computing the overall horsepower requirement. Discuss need for LOMRC and GICA traffic representatives.

CRITICAL AREA DESCRIPTION	TRIGGER READING	TREND	TRIGGER CURRENT	DESCRIPTION	PHASE	ACTIONS
Canal Tows Port Allen Locks Mile 219 - 229	BR Gauge 35'0"	Rising projected to 40'0"		High Water/Flood Stage	Action	 Require 1 horsepower per 5 tons or 280 HP per regulation loaded barge restriction on canal tows entering/exiting the Locks. Empty barges may be calculated at ½ the horsepower requirements to that of a loaded barge when computing the overall horsepower requirement. Assist vessel required at Port Allen Locks. All tows >600' (excluding towboat) exiting the lock must use an assist vessel with a min of 1000 HP and when topping around between MM 226-221. All tows >600' (excluding towboat) planning to top around without the use of an assist vessel must proceed southbound to the safest point below MM 221. All tows >600 feet in length entering the locks (excluding towboat) must use an assist vessel with minimum of 1800 HP. All tows 300-600 feet in length (excluding towboat) entering the locks must use an assist vessel with minimum of 1000 HP.

CRITICAL AREA DESCRIPTION	TRIGGER READING	TREND	TRIGGER CURRENT	DESCRIPTION	PHASE	ACTIONS
Canal Tows Port Allen Locks Mile 219 - 229	BR Gauge 35'0" (Continued)	Rising projected to 40'0"		High Water/Flood Stage	Action	 (Continued) All tows >300 but <600' (excluding towboat) exiting the lock are advised to employ the use of an assist vessel (1000 Hp Min) and when topping around at MM 226. Issue advisory for all tows <300' (excluding towboat) entering or exiting the lock to employ the use of an assist vessel (800 HP min). If unable to meet the HP to Ton requirement and permission obtained to enter Safety Zone from VTC LMR, then Assist Vessel is mandatory for entering or exiting the Locks. GICA will provide one watch stander to VTS LMR in New Orleans to monitor and advise and monitor traffic transiting the Port Allen Lock when required due to the High Water conditions above 35 feet on the Baton Rouge gauge. Note: VTS LMR has authority to grant individual waivers for alternate assist vessels within 200 HP of requirement based on conditions.

CRITICAL AREA	TRIGGER READING	TREND	TRIGGER CURRENT	DESCRIPTION	PHASE	ACTIONS
Canal Tows Port Allen Locks Mile 219 – 229	BR Gauge 40'0"	Rising		Extreme High Water/Max Locking Ability	Action	 Conference call to discuss additional HP, Length, and Anchorage restrictions, operations of the spillways, and possible closure of the Port Allen locks. Require 5 HP per ton or 300 HP per regulation barge restriction on canal tows entering/exiting the Locks. Empty barges may be calculated at ½ the horsepower requirements to that of a loaded barge when computing the overall horsepower requirement. Tows >600 feet in length entering and exiting locks shall use 1800 hp assist vessel. Tows >300 to 600 feet in length shall use 1200 hp assist vessel entering and exiting the locks. Tows <300 feet in length shall use 800 hp assist vessel entering and exiting the locks. The use of an assist vessel is mandatory for all tows entering or exiting Locks. The assist vessel shall remain with the tow to assist with topping around between MM 226-221. All tows planning to top around without the use of an assist vessel must proceed southbound to the safest point below MM 221.

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CRITICAL AREA DESCRIPTION	TRIGGER READING	TREN D	TRIGGER CURRENT	DESCRIPTION	PHASE	ACTIONS
Canal Tows Port Allen Locks	BR Gauge 40'0"	Falling		Extreme High Water	Recovery	Conference call to discuss phase down of restrictions and controls implemented.
Mile 219 - 229	BR Gauge 35'0"	Falling		High Water/Flood Stage	Recovery	Conference call to discuss phase down of restrictions and controls still in place.
	BR Gauge 28'0"	Falling		Normal Operations	Recovery	Conference call to discuss phase down of restrictions and controls still in place.

CRITICAL AREA DESCRIPTION	TRIGGER READING	TREND	TRIGGER CURRENT	DESCRIPTION	PHASE	ACTIONS
Wilkinson Point	BR Gauge 23'0"	Rising				Ensure Bear Industries (MM 234 RDB) removed their dredge at 23 Feet and rising.
Line Tows Wilkinson Point Mile 232 - 237	BR Gauge 28'0"	Rising		High Water	Watch	 Conference call to discuss current flow rate and prediction of rise/crest. Advisory issued to all line tow operators and towing companies recommending a ratio of 240 horsepower per barge for southbound transit of this area. Empty barges may be calculated at ½ the horsepower requirements to that of a loaded barge when computing the overall horsepower requirement. Maximum tow size of 36 barges. Allow 8000 HP tug to push 35 barge tow makeup. (400 hp less than requirement). Buoys that will prevent tows from taking a proper line around points and bends should be adjusted to not hinder flanking operations. Owner/Operators will ensure towing vessel inspections are completed before entering the RNA as per 33 CFR 164 and 33 CFR 165.810(f). Advisory issued for tows to use most experienced crews.

CRITICAL AREA DESCRIPTION	TRIGGER READING	TREND	TRIGGER CURRENT	DESCRIPTION	PHASE	ACTIONS
Line Tows Wilkinson Point Mile 232 - 237	BR Gauge 33'0"	Rising	CURRENT	High Water	Watch	 Conference call to discuss impending attainment of 35'. Discuss river stage forecasts, current velocities, and predictions of crest. Reissue Marine Information Broadcasts and Marine Safety Bulletin, as needed. Discuss when or if to establish Safety zone and assess the need for the LOMRC and GICA representatives.
						Asses the need for mandating the Traffic Assist Vessel (TAV).

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Line Tows Wilkinson Point	BR Gauge 35'0"	Rising projected to	Extreme High Water	Action	>	Conference call to discuss 35' attainment and 40' impending attainment.
Mile 232 – 237	33 0	40'0"	Water		_	
					>	If a safety zone is established for the area, one or all of the following will be implemented
						based on input from LOMRC, GICA and CG: o Max tow size to a limitation of 30
						barges with 280 HP for Southbound transits within Safety Zone. Empty
						barges may be considered ½ a barge when computing the overall
						horsepower requirement, but no more than 30 barges maximum.
						o All South Bound traffic will utilize the
						TAV (min 5000 HP). The TAV must meet the southbound vessel no lower
						than 2000 feet above Wilkinson Point. The TAV will position itself alongside
						the stern barge. Vessels unable to meet the minimum barge per horsepower
						requirement must utilize the TAV until below MM 229.
						 The TAV will then confirm information of current reaction above, around and below Wilkinson Point.
						o The assist vessel will discuss what the
						last vessel that transited Wilkinson Point found and continually brief
						southbound vessels of present position in correlation with the last vessel that transited.
						The assist vessel will make corrections
						to the southbound vessel's stern positioning if necessary.
						o No more than two southbound vessels

Line Terre	DD C	D:.:	Dartmann . III . 1.	A ~/	
Line Tows	BR Gauge	Rising	Extreme High	Action	will be allowed below Thomas Point at
Wilkinson Point	35'0"	projected to	Water		any time regardless of tow size.
Mile 232 - 237	(Continued)	40'0"			o There will be a LOMRC representative onboard the assist vessel or at VTS to coordinate the operation from the assist vessel with pilots on scene to ensure safe navigation.
					VTS LMR will still carry out their mission IAW Waterways Action Plan.
					 All South Bound traffic will transit Wilkinson point during daylight hours only.
					 Northbound vessels unable to make 3 MPH under the Highway 190 Bridge and around Wilkinson Point must use a Private Assist Vessel (PAV).
					o Establish a "no meeting or passing zone" for MM 232 AHOP to MM 237 AHOP (Note: VTS LMR may allow a deviation from this restriction).
					 LOMRC and GICA traffic representatives will be established.
					Tank barges shall be placed in most protected position in tow makeup.
					Advisory that all tows shall be squared off. No spiked barges shall extend greater than 50;' beyond the head of the tow. Advisory issued for tows to use experienced crews.

Line Tows Wilkinson Point Mile 232 – 237	BR Gauge 40'0"	Rising	Extreme High Water	Action	Conference call to discuss additional HP, Length, and size restrictions. Asses the need for max tow size limited to 25 barges with 300 HP per barge for Southbound transits within the existing Safety Zone. Empty barges may be calculated at ½ the horsepower requirements to that of a loaded barge when computing the overall horsepower requirement. Note: Vessels transiting the safety zone that have mixed loaded/empty tows and do not meet the horsepower per barge requirement must contact the VTS LMR to obtain permission to transit.
Line Tows Wilkinson Point Mile 232 – 237	BR Gauge 43'0"	Rising	Extreme High Water		 Conference call to discuss 43' attainment and 45' impending attainment and operations of the spillways. If a safety zone is established for the area, one or all of the following will be implemented based on input from LOMRC, GICA and CG: Max tow size to a limitation of 20 barges with 300 HP for Southbound transits within the existing safety zone. Empty barges may be considered ½ a barge when computing the overall horsepower requirement, but no more than 20 barges

Line Tows Wilkinson	43'0" BR Gauge	Rising	Extreme High Water	Action		maximum.
Point Mile 232 – 237	(continued)		water		>	All South Bound traffic will utilize both the TAV (min 5000 HP) and the Secondary Towing Assist Vessel (STAV) (min 2000 HP).
					>	The TAV must meet the southbound vessel no lower than 2,000 feet above Wilkinson Point (T&T Barge Cleaning Plant).
					>	The TAV will position itself alongside the stern barge.
					>	Vessels unable to meet the minimum barge per horsepower requirement must utilize the appropriate TAV until below MM 229.
					>	The TAV will then confirm information of current reaction above, around and below Wilkinson Point.
					>	The TAV will discuss what the last vessel that transited Wilkinson Point found and continually brief southbound vessels of present position in correlation with the last vessel that transited.
					A	The TAV will make corrections to the southbound vessel's stern positioning if necessary. There will be a STAV stationed 500' above the Hwy 190 Bridge.

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Line Tows Wilkinson Point	43'0" BR Gauge (continued)	Rising	Extreme High Water	Action	It should shadow the barge through the bridge until it is clear of the Hwy 190 Bridge.
Mile 232 – 237					The STAV will communicate with the southbound vessel and the TAV above Wilkinson Point through the Hwy 190 Bridge and convey present attitude of southbound vessel.
					The STAV standby zone will overlap with the T zone during the most critical times above the bridge.
					No more than two southbound vessels will be allowed below Thomas Point at any time regardless of tow size.
					There will be a LOMRC representative onboard the TAV to coordinate the operation from the assist vessel with pilots on scene to ensure safe navigation.
					 VTS LMR will still carry out their mission IAW Waterways Action Plan.
					 All South Bound traffic will transit Wilkinson point during daylight hours only.
					 Northbound vessels unable to make 3 MPH under the Highway 190 Bridge and around Wilkinson

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Line Tows	43'0"	Rising	Extreme High	Action	Point must use a PAV.
Wilkinson	BR Gauge		Water		
Point	(continued)				Establish a "no meeting or
Mile 232 –					passing zone" for MM 232 AHOP
237					to MM 237 AHOP. (Note: VTS
					LMR may allow a deviation from
					this restriction).
					LOMRC and GICA traffic
					representatives will be
					established.
					established.
					Tank barges shall be placed in
					most protected position in tow
					makeup.
					 Advisory issued for tows to
					use: experienced crews and
					Squared off tows;
					No spiked barges that extend
					50' beyond the head of the
					tow.

CRITICAL AREA DESCRIPTION	TRIGGER READING	TREND	TRIGGER CURRENT	DESCRIPTION	PHASE	ACTIONS
Line Tows Wilkinson Point Mile 232 - 237	40'0''	Falling		Extreme High Water	Recovery	Conference call to discuss phase down of restrictions and controls implementation.
	35'0"	Falling		High Water/Flood Stage	Recovery	Conference call to discuss phase down of restrictions and controls still in place.
	28'0"	Falling		Normal Operations	Recovery	Conference call to discuss phase down of restrictions and controls still in place.

CRITICAL AREA DESCRIPTION	TRIGGER READING	TREND	TRIGGER CURRENT	DESCRIPTION	PHASE	ACTIONS
Tows Topping Around between the I-10 and Hwy 190 Bridges and harbor fleet tows.	BR Gauge 35'0"	Rising projected to 40'0"		High Water/Flood Stage	Action	 Conference call to discuss current flow rate and prediction of rise/crest. Assess the need for tows >600' in length to use 1000 hp assist vessel when topping around. Advisory issued for tows >300' to 600' in length to use 1000 hp assist vessel when topping around. Advisory issued for tows <300' in length to use 800 hp assist vessel when topping around. Harbor Fleet Tows consisting of one barge tows and mid-stream fueling ops are exempt from daylight only restriction but must coordinate transit with VTS LMR. Harbor Fleet Tows are authorized for harbor shifts both day and night of one load or two empties. Note: Tows desiring to top around with less than required HP for assist vessel must contact VTC LMR for approval. VTC LMR may approve based on conditions.

CRITICAL AREA DESCRIPTION	TRIGGER READING	TREND	TRIGGER CURRENT	DESCRIPTION	PHASE	ACTIONS
Tows Topping Around between the I-10 and Hwy 190 Bridges and harbor fleet tows.	BR Gauge 40'0"	Rising		Extreme High Water	Action	 Conference call to discuss current flow rate and prediction of rise/crest. Discuss additional restrictions. Tows >600' in length may be required to use 1800 hp assist vessel when topping around. Tows >300' to <600' in length may be required to use 1000 hp assist vessel when topping around. Tows <300' in length may be required to use 800 hp assist vessel when topping around. Note: VTS LMR has authority to grant exceptions to these requirements based on conditions.

CRITICAL AREA DESCRIPTION	TRIGGER READING	TREND	TRIGGER CURRENT	DESCRIPTION	PHASE	ACTIONS
Tows Topping Around between the I-10 and Hwy	BR Gauge 40'0"	Falling		Extreme High Water	Recovery	Conference call to discuss phase down of restrictions and controls implementation.
190 Bridges and harbor fleet tows.	BR Gauge 35'0"	Falling		Normal Operations	Recovery	Conference call to discuss phase down of restrictions and controls still in place.

CRITICAL AREA DESCRIPTION	TRIGGER READING	TREND	TRIGGER CURRENT	DESCRIPTION	PHASE	ACTIONS
Ocean Going Baton Rouge Harbor Mile 225- 234	BR Gauge 35'0"	Rising projected to 40'0"		High Water/Flood Stage	Action	 Conference call to discuss current flow rate and prediction of rise/crest. Ocean Going vessels must use tug escorts (w/adequate hp) alongside while transiting above the I-10 Bridge to the dock, as well as departing the dock and transiting southbound past the I-10 Bridge. Pilot Association shall notify VTS LMR prior to any Ocean Going vessels transiting the RNA. Only one Ocean Going vessel at a time will be allowed to be underway between the I-10 Bridge and the US-190 Bridge. Ocean Going vessels not to anchor in the upper ½ mile of Baton Rouge General Anchorage. Pilot to notify VTS LMR if necessary to anchor any vessel in the remainder of the anchorage. Consider additional anchorage restrictions. Ocean Going vessels must contact the VTS LMR with ETA at Richard Powell range light (MM 218.4) and check in again once at MM 219. Ocean Going vessels departing the safety zone must contact the VTS LMR prior to getting U/W. Note: the purpose of this section is not designed to control the Ocean Going vessels.

CRITICAL AREA DESCRIPTION	TRIGGER READING	TREND	TRIGGER CURRENT	DESCRIPTION	PHASE	ACTIONS
Ocean going Baton Rouge Harbor Mile 225- 234	BR Gauge 40'0	Rising projected to 43'0"		Extreme High Water	Action	Conference call to discuss current flow rate and prediction of rise/crest.

CRITICAL AREA DESCRIPTION	TRIGGER READING	TREND	TRIGGER CURRENT	DESCRIPTION	PHASE	ACTIONS
Ocean Going Baton Rouge Harbor Mile 225- 234	BR Gauge 40'0"	Falling		Extreme High Water	Recovery	Conference call to discuss phase down of restrictions and controls implementation.
	BR Gauge 35'0"	Falling		High Water/Flood Stage	Recovery	Conference call to discuss phase down of restrictions and controls still in place.
	BR Gauge 28'0"	Falling	_	Normal Operations	Recovery	Conference call to discuss phase down of restrictions and controls still in place.

CRITICAL AREA DESCRIPTION	TRIGGER READING	TREND	TRIGGER CURRENT	DESCRIPTION	PHASE	ACTIONS
All Vessels 81- Mile Point Mile 170-182	BR Gauge 35'0"	Rising		High Water/Flood Stage	Watch	 Conference with Ocean Going and Towing stakeholders to call to discuss current flow rate and prediction of rise/crest. Discuss need for safety zone based on conditions.

CRITICAL AREA DESCRIPTION	TRIGGER READING	TREND	TRIGGER CURRENT	DESCRIPTION	PHASE	ACTIONS
		Rising		Extreme High Water	Action	 Conference call to discuss current flow rate and prediction of rise/crest. Establish a safety zone from mile 170-182. Ocean Going vessels shall navigate through the safety zone during daylight hours only. Towing vessels must be able to maintain a minimum of 3 mph through the Safety Zone. No holding up within ¾ of a mile of 81 Mile Point on the LDB. Issue advisory that all northbound tows should stay 300-400 feet off the LDB within ½ mile of 81-mile point to avoid dangerous eddies. All vessels shall also comply with the existing RNA requirements. Vessels transiting the area should avoid passing or
						overtaking situations at or near; Philadelphia Point, 81 mile Point, Bringier Point, and Point Houmas

CRITICAL AREA DESCRIPTION	TRIGGER READING Canal/land side	TREND	DESCRIPTION	PHASE	ACTIONS
Port Allen-Morgan City Alternate Route Mile MM 37.6 to MM 45 Bayou Sorrel/Bayou Pigeon	BS Gauge 5.5'	Rising	High Water	Watch	 Conference call to discuss current flow rate and prediction of rise/crest. Issue a Marine Information Broadcast to advise mariners to transit area at slow speed with no discernable wake and/or not more than one inch.

CRITICAL AREA DESCRIPTION	TRIGGER READING Canal/land side	TREND	DESCRIPTION	PHASE	ACTIONS
Port Allen-Morgan City Alternate Route Mile MM 37.6 to MM 45 Bayou Sorrel/Bayou Pigeon	BS Gauge 6.0'	Rising	High Water	Action	 Conference call to discuss current flow rate and prediction of rise/crest. Establish a Safety Zone from Mile 37.6 (Bayou Sorrel Locks) to Mile 45 and the Lower Grand River (Bayou Pigeon) from intersection with Port Allen Alternate Route to Iberville Parish line. Establish a no wake zone Update Marine Information Broadcast to advise mariners of Safety Zone.

CRITICAL AREA DESCRIPTION	TRIGGER READING Canal/land side	TREND	DESCRIPTION	PHASE	ACTIONS
Port Allen-Morgan City Alternate Route Mile MM 37.6 to MM 45 Bayou Sorrel/Bayou Pigeon	BS Gauge 6.5'	Rising	High Water	Action	 Conference call to discuss current flow rate and prediction of rise/crest. Update Safety Asses the need for one-way traffic though Bayou Sorrel Waterway Mile 37.6 to Mile 45. Close Lower Grand River Waterway to all commercial traffic.
Port Allen-Morgan City Alternate Route Mile MM 37.6 to MM 45 Bayou Sorrel/Bayou Pigeon	BS Gauge 6.9'	Rising	High Water	Action	 Conference call to discuss closing the system to vessels entering the system, but allowing vessels to exit. Bayou Sorrel Lock to begin clearing out waterway and will not allow vessels to enter.

CRITICAL AREA DESCRIPTION	TRIGGER READING Canal/land side	TREND	DESCRIPTION	PHASE	ACTIONS
Port Allen-Morgan City Alternate Route Mile MM 37.6 to MM 45 Bayou Sorrel/Bayou Pigeon	BS Gauge 7.3'	Rising	High Water	Action	 Army Corps will close Bayou Sorrel Locks to all navigation. Coast Guard will close the waterway to all power driven vessels.

CRITICAL AREA DESCRIPTION	TRIGGER READING Canal/land side	TREND	DESCRIPTION	PHASE	ACTIONS
Port Allen-Morgan City Alternate Route Mile MM 37.6 to MM 45 Bayou	BS Gauge 6.9'	Falling	Extreme High Water	Recovery	Conference call to discuss phase down of restrictions and controls implementation.
Sorrel/Bayou Pigeon	BS Gauge 6.5'	Falling	High Water	Recovery	Conference call to discuss phase down of restrictions and controls still in place.
	BS Gauge 6.0'	Falling	High Water	Recovery	 Conference call to discuss phase down of restrictions and controls still in place. Cancel Safety Zone.
	BS Gauge 5.5'	Falling	High Water	Recovery	 Conference call to discuss phase down of restrictions and controls still in place. Cancel Marine Safety Broadcast.

CRITICAL AREA DESCRIPTION LOW WATER	TRIGGER READING Canal/land side	TREND	DESCRIPTION	PHASE	ACTIONS
LMR MM 167-303	BR Gauge 12.0'	Falling	Low Water	Recovery	➤ Issue Safety Advisory including the following recommendations: Towing Vessels reduce loads and/or barges, to enable them to navigate through trouble areas; Consider draft restrictions for oceangoing vessels; Pilots and Masters of Oceangoing vessels should review the facility's docking procedures prior to arriving at the facility; All vessels should consider staffing vessels with their most experienced crews.

CRITICAL AREA DESCRIPTION	TRIGGER READING Canal/land side	TREND	DESCRIPTION	PHASE	ACTIONS
81 Mile Point LMR MM 177-179	BR Gauge 12.0'	Falling	Low Water	Recovery	Issue Safety Advisory including the following recommendations: In accordance with 33 CFR 165.810(g), all vessels moving or intending to move in this area must complete the appropriate check-in procedures with VTS New Orleans prior to transiting; Mariners are also advised of the increased possibility of shoaling in this area and should use extreme caution while transiting.

CRITICAL AREA DESCRIPTION	TRIGGER READING	TREND	DESCRIPTION	PHASE	ACTIONS
	Canal/land side				
LMR MM 167-303/	BR Gauge	Falling	Low Water	Recovery	> Safety Advisory in effect.
81 Mile Point	10.0'				 Consider issuing tow size and oceangoing vessel draft
					recommendations.
					Check with USACE about survey and dredging plans.
					Discuss Navigational Aids with surrounding CG ATON
					units.
					Consider conference call to discuss Safety Zone.

CRITICAL AREA DESCRIPTION	TRIGGER READING Canal/land side	TREND	DESCRIPTION	PHASE	ACTIONS
LMR MM 167-303/ 81 Mile Point	BR Gauge 9.0'	Falling	Low Water	Recovery	 Safety Advisory in effect. Consider issuing tow size and oceangoing vessel draft recommendations. Check with USACE about survey and dredging plans. Consider one-way traffic in trouble areas. Consider conference call to discuss Safety Zone.

CRITICAL AREA DESCRIPTION	TRIGGER READING Canal/land side	TREND	DESCRIPTION	PHASE	ACTIONS
LMR MM 167-303/ 81 Mile Point	BR Gauge 8.0'	Falling	Low Water	Recovery	 Safety Advisory in effect. Consider issuing tow size and oceangoing vessel draft recommendations. Check with USACE about survey and dredging plans. Identify specific critical low water areas. Consider conference call to discuss Safety Zone.

CRITICAL AREA DESCRIPTION	TRIGGER READING Canal/land side	TREND	DESCRIPTION	PHASE	ACTIONS		
LMR MM 167-303/ 81 Mile Point	BR Gauge 7.0'	Falling	Low Water	Recovery	 Safety Advisory in effect. Consider issuing tow size and oceangoing vessel draft recommendations. Check with USACE about survey and dredging plans. Identify specific critical low water areas. Consider conference call to discuss Safety Zone. 		

5. Risk Assessment

5. A. Low Water (Baton Rouge Gauge = 10 Feet and below)

	Fa	ctors to Increas	e Likelihood of	Çasualty					Score
LOCATION	Obs to Nav	<u>Channel</u> <u>Width</u>	Bend Radius	Congestion	Casualty History	Risk Score		High	100
MM225-233 (Port Allen Locks-I-10 Bridge)	High	Medium	Medium	High	Low	222		Medium	10
MM233-238 (Wilkinson Point -190 Bridge)	High	Medium	Medium	High	Low	222			
MM238-246 (Thomas Pt- Springfield Bend)	Low	High	High	Medium	Low	213	Accep	otable Risk Threshold	480
MM246-260 (Profit Island -Fancy Point)	Low	High	Medium	Medium	Low	123			
MM260-275 (Pointe Coupee)	Low	High	Medium	Medium	Low	123			
MM275-282 (Morganza Bend)	Low	High	Medium	Medium	Low	123			
MM282-295 (Tunica Bend)	Low	High	Low	Medium	Low	114			
MM295-302 (Hog Point)	Low	High	Low	Medium	Low	114			
MM302-306 (Old River Lock)	Low	High	Low	Medium	Low	114			
MM306-320 (Old River Control Structure)	Low	High	Low	Medium	Low	114			

MM	Description	Casualties
225-233	Port Allen Locks - I-10 Bridge	2
233-238	Wilkinson Point - 190 Bridge	2
238-246	Thomas Point - Springfield Bend	1
246-260	Profit Island - Fancy Point	3
260-275	Pointe Coupee	0
275-282	Morganza Bend	0
282-295	Tunica Bend	0
295-302	Hog Point	3
302-306	Old River Lock	1
306-320	Old River Control Structure	0

5. B. Normal water (Baton Rouge Gauge = 10 - 28 Feet)

	Factor	rs to Increase	Likelihood of	Casualty					Score
LOCATION	Obs to Nav	<u>Channel</u> <u>Width</u>	Bend Radius	Congestion	Casualty History	Risk Score		High	100
MM225-233 (Port Allen Locks-10 Bridge)	High	Medium	Medium	High	High	420		Medium	10
MM233-238 (Wilkinson Point -190 Bridge)	High	Medium	Medium	High	High	420			
MM238-246 (Thomas Pt- Springfield Bend)	Low	Medium	High	Medium	Low	123	Acce	otable Risk Threshold	480
MM246-260 (Profit Island-Fancy Point)	Medium	High	Medium	Medium	Low	132			
MM260-275 (Pointe Coupee)	Low	Medium	Medium	Medium	Low	33			
MM275-282 (Morganza Bend)	Low	Medium	Medium	Medium	Low	33			
MM282-295 (Tunica Bend)	Low	Medium	Low	Medium	Low	24			
MM295-302 (Hog Point)	Low	Medium	Low	Medium	Low	24			
MM302-306 (Old River Lock)	Low	Medium	Low	Medium	Low	24			

MM	Description	Casualties
225-233	Port Allen Locks - I-10 Bridge	19
233-238	Wilkinson Point - 190 Bridge	12
238-246	Thomas Point - Springfield Bend	2
246-260	Profit Island - Fancy Point	4
260-275	Pointe Coupee	2
275-282	Morganza Bend	0
282-295	Tunica Bend	1
295-302	Hog Point	2
302-306	Old River Lock	1

5. C. High Water (Baton Rouge Gauge = 28 feet and higher. Note: the casualty history and scoring of Port Allen Locks and

Wilkinson Point were completed assuming continuation of the existing River Crisis Action Plan in place.)

	Facto	rs to Increase	Casualty					Score	
LOCATION	Obs to Nav	Channel Width	Bend Radius	Congestion	Casualty History	Risk Score		High	100
MM225-233 (Port Allen Locks-I-10 Bridge)	High	Medium	Medium	High	Medium	240		Medium	10
MM233-238 (Wilkinson Point -190 Bridge)	High	High	Medium	High	Low	312			
MM238-246 (Thomas Pt- Springfield Bend)	Low	High	High	Medium	Low	213	Acc	eptable Risk Threshold	480
MM246-260 (Profit Island - Fancy Point)	Low	High	Medium	Medium	Low	123			
MM260-275 (Pointe Coupee)	Low	Medium	Medium	Medium	Low	33			
MM275-282 (Morganza Bend)	Low	Medium	Medium	Medium	Low	33			
MM282-295 (Tunica Bend)	Low	Medium	Low	Medium	Low	24			
MM295-302 (Hog Point)	Low	Medium	Low	Medium	Low	24			
MM302-306 (Old River Lock)	Low	Medium	Low	Medium	Low	24			

MM	Description	Casualties
225-233	Port Allen Locks - I-10 Bridge	9
233-238	Wilkinson Point - 190 Bridge	2
238-246	Thomas Point - Springfield Bend	2
246-260	Profit Island - Fancy Point	2
260-275	Pointe Coupee	1
275-282	Morganza Bend	0
282-295	Tunica Bend	0
295-302	Hog Point	0
302-306	Old River Lock	1

5. D. Risk Legend

Risk Factors					
Need for Precise Control	Navigational Complexity			Congestion	
	Obstructions to Navigation	Channel Width (Full Banks)	Bend Radius		Casualty History (7 yr period)
High	Multiple Obstructions	Narrow - single passage	sharp bend: >180 deg	traffic always present	>10
Medium	Single Obstruction	Medium - dual passage is possible/likely	gradual bend: between 90 and 180 deg	traffic sometimes present	6>x>10
Low	No Obstructions	Wide - more than 2 vessel passage possible	no bend: >90 deg or no river crossing	traffic rarely present	>6